

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

REMARKS

The Examiner is thanked for focusing on a number of the issues in this case in the final Office Action. Claims 1-17 and 23 are in the present application, Claims 18-22 and 24-26 having been previously cancelled.

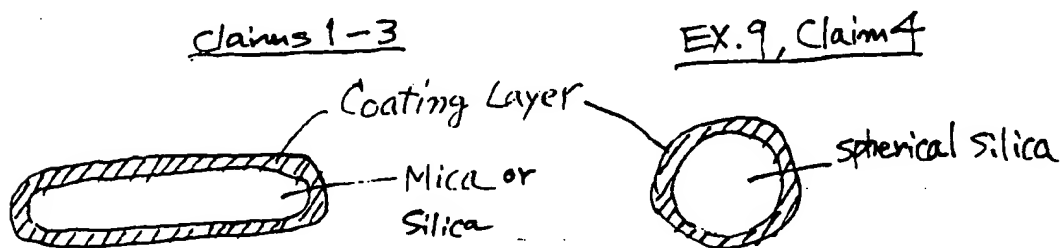
Reconsideration is respectfully requested of the Examiner's conclusions that the present application is not entitled to claim an effective filing date of August 16, 1990. In a ruling on this issue the Examiner has stated in the final Office Action that "The description of SiO<sub>2</sub> as non-porous in the instant Application was not recited in either the foreign priority document or the domestic priority documents".

In this regard, it is respectfully submitted that this CIP application, 09/818,692, in Example 1 on pages 11-14 describes the production of a flaky fine powder of the present invention using the process called for in the original application filed on August 19, 1990. It can be seen in this Example 1 that data obtained in the Example and photographs taken with an electron microscope of the flaky fine powder established that the sample of spherical silica produced by the method of the present invention is in fact non-porous (see, for example, calculations appearing on page 14 in Example 1).

It is therefore apparent, on the basis of this data and calculations, that the flaky fine powder of the present invention has a coating on the flake or scaly base of spherical silica particles which are non-porous. Consequently, it is clear that the method of the present invention as filed in the original parent application on August 16, 1990 inherently produces a flaky fine

powder containing a flaky or scaly base having thereon spherical silica particles which are non-porous. In view of this data and calculations, it is respectfully requested that the Examiner reconsider the previous decision with regard to priority, and accord the present application an effective filing date of August 16, 1990.

Reconsideration is respectfully requested of the rejection of Claims 1-17 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Seo, et al. in view of Golz-Berner, et al. On page 3, lines 2 and 3, of the final Office Action, the Examiner asserts that Seo, et al. teaches a coating layer comprising particles which have a spherical form deposited on a base. Applicants take issue with the Examiner's interpretation of the Seo, et al. reference and respectfully point out that this reference does not teach a coating layer comprising particles which have a spherical form deposited on a base. On the contrary, the Seo, et al. reference teaches amorphous glassy coating layers of metal oxides such as silica (Claim 4) as shown below in the sketch.



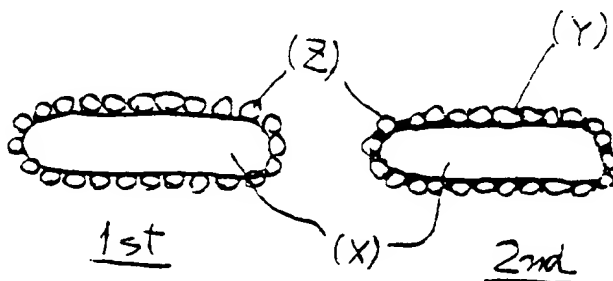
Moreover, Seo, et al. does not disclose a coating layer comprised of silica particles which have a spherical form. Perhaps the Examiner in making reference to Example 9 in Seo, et al. in which spherical silica of 5 – 10  $\mu\text{m}$  in diameter were added to amorphous silica powder, calcium carbonate, zinc carbonate, aluminum dioxide and yellow ferric oxide. This example, it is respectfully submitted, produces a product as shown below.

There it can be seen that the spherical silica constitutes the substrate upon which is formed an amorphous glassy coating layer. The amorphous glassy coating layer in no way constitutes spherical silica particles. It is therefore clear that the Examiner's primary reference of Seo, et al. has been misinterpreted since this reference does not disclose a coating layer of silica particles having a spherical form.

The Examiner's confusion with regard to the interpretation of Seo, et al. is spelled out in the paragraph bridging pages 3 and 4 of the final Office Action. First, applicants maintain their position that the spherical silica disclosed therein is not the coating layer but rather the inorganic cosmetic pigment base. It is clear from Example 9 in Seo, et al. that spherical silica particles of 5 – 10  $\mu\text{m}$  in diameter were coated with a combination of metal oxides including amorphous silica powder to produce the amorphous glassy coating layer which is described throughout Seo, et al. Note particularly the claims, for example, Claim 1 and Claim 23 recite that the coating layer is formed of an amorphous glassy coating. Applicants do agree with the Examiner that Seo, et al. teaches a coating layer containing silica. However, that silica was incorporated in the coating layer in an amorphous form and, when processed, forms the "amorphous glassy coating layer of metal oxides having a lattice structure" (See Claims 1 and 23).

In the Office Action the Examiner has indicated that the Examiner was unable to locate the declaration filed on 5/22/96 in the parent application. To assist in evaluation of this case, applicant is submitting a copy of that declaration for the Examiner's information.

It is an object of the present invention to provide a means for reducing the glossiness of flaky, fine cosmetic bases caused by the irregular reflection of light on the surface thereof, to improve the slipperiness of the base, and to provide a means of production thereof. To achieve these objects, the present invention provides a flaky, fine powder comprising a flaky base (X), and non-porous spherical silica particles (Z) covering the surface of (X) (see claims 3 and 10). In addition, a second flaky, fine powder is provided comprising a flaky base (X), a hydrolysate of alkoxysilane and/or silica gel (Y), and non-porous spherical silica particles (Z). The surface of (X) is covered by (Y) and (Z), as shown below:



The coating layer of the present invention comprises particles which have a spherical form deposited on a base having a flat grain size. This results in the surface of the flaky substrate being

uneven. Thus, the flaky, fine base substance, such as mica, has the unexpected and superior property of homogeneous light distribution as illustrated in Figs. 6-8 and 10, i.e., the glossiness is reduced and reflected light on the uneven surface of the substance is not partial to a certain angle and is distributed homogeneously.

This unexpected result was clearly demonstrated in the declaration under 37 CFR 1.132 filed in the parent application on May 22, 1996.

In addition, the unexpected properties of the product of the present invention is illustrated in the new subject matter in this CIP application in Fig. 11 which shows that the silica particles are spherical and non-porous, and that there is no air void at the surface or in the spherical silica. These showings in the declaration and in the newly added subject matter herein clearly establish non-obvious patentable differences between the claimed product and the prior art compositions. It is therefore respectfully submitted that the submission of this evidence clearly rebuts any prima facie case of obviousness based on the prior art of record.

Moreover, as the Examiner has correctly pointed out on page 3, paragraph 1, of the instant Office Action, Seo, et al. fails to teach either the average particle size of the silica coating particles or the non-porous nature thereof, both factors of which are important in achieving the object of the present invention. In addition, as discussed above, the spherical silica disclosed therein is NOT the coating layer of the base, but rather the inorganic cosmetic pigment base.

Further, the secondary reference of Golz-Berner, et al. fails to disclose a composition having a physical structure similar to or the same as the composition as called for in the claims herein. Instead, an agglomerate is disclosed, which does not and cannot perform the functions of the

composition of the present invention, which comprises a base coated with smaller spherical particles.

The Examiner has also correctly recognized the failure of both of the cited references to disclose the permittivity of the dispersion, as claimed herein. In an effort to obviate this lack of disclosure, the Examiner maintains that this claimed element is inherent in the cited references. However, as pointed out above, in fact neither of the cited references disclose the composition called for herein. Namely, there is no disclosure whatsoever of "a flaky, fine powder comprising a flaky or scaly base having a thickness of about 1  $\mu\text{m}$  or less and selected from the group consisting of mica, talc and platelet shaped silica; and spherical silica particles comprised of  $\text{SiO}_2$  or a mixture of  $\text{SiO}_2$  with one or more of  $\text{Al}_2\text{O}_3$ ,  $\text{ZrO}_2$ ,  $\text{MgO}$ ,  $\text{ZnO}$ ,  $\text{CeO}_2$  or  $\text{Fe}_2\text{O}_3$ , and said spherical silica particles being non-porous and having an average particle size of 0.05-3  $\mu\text{m}$  and covering the surface of said flaky or scaly base", as called for in claim 3 herein. It is therefore believed that a conclusion of inherency is impossible.

It is respectfully submitted that neither of the cited references disclose non-porous spherical silica particles having an average particle size of 0.05-3  $\mu\text{m}$  deposited on and immobilized on a flaky or scaly base having a thickness of about 1  $\mu\text{m}$  or less, which provides the permittivity of the dispersion called for herein, and which is produced by the methods claimed herein. On the contrary, those teachings or suggestions come only from the present application, and constitute important elements or aspects of the present invention.

In conclusion, in view of these deficiencies of the cited references, it is respectfully submitted that it would NOT have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the two cited references to achieve the

composition of the present invention. This conclusion is based largely on the fact that the Examiner's primary reference of Seo, et al. fails to disclose coating a flaky, fine base with spherical, non-porous silica with the claimed characteristics herein, such as the homogeneous light distribution achieved and demonstrated with the present invention. Also, the teaching relied upon by the Examiner in the cited Golz-Berner, et al. reference of UV light reflectivity is NOT believed to be comparable to the homogeneous light distribution provided herein. Thus, withdrawal of the rejection is accordingly respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action and allowance thereof is accordingly respectfully requested. In the event there is any reason why the application cannot be allowed at the present time, it is respectfully requested that the Examiner contact the undersigned at the number listed below to resolve any problems.

Respectfully submitted,

TOWNSEND & BANTA

A handwritten signature in black ink, appearing to read 'Donald E. Townsend', is written over the printed name and registration number.

Donald E. Townsend  
Reg. No. 22,069

Customer No. 27955

TOWNSEND & BANTA  
Suite 900, South Building  
601 Pennsylvania Ave., N.W.



Washington, D.C. 20004  
(202) 220-3124

Date: July 23, 2004

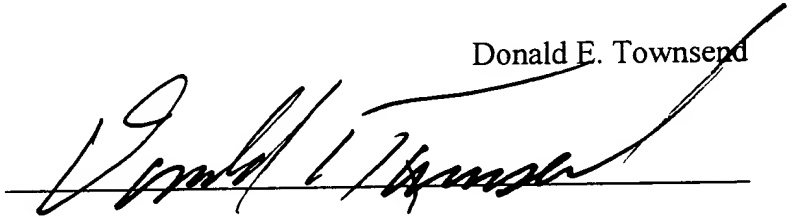
**CERTIFICATE OF MAILING**

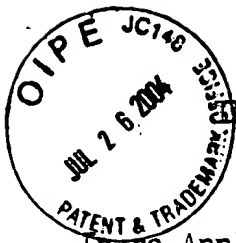
I hereby certify that this Response to Final Office Action and Transmittal in U.S. Application No. 09/818,692, filed March 28, 2001, are being deposited with the United States Postal Service prepaid with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

On July 23, 2004.

Donald E. Townsend

A handwritten signature in black ink, appearing to read "Donald E. Townsend", is written over a horizontal line. The signature is stylized and cursive.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

H. TANAKA, et al.

Serial No.: 07/969,176

Art Unit: 1501

Filed: February 12, 1993

Examiner: R. Harrison

For: Cosmetics Comprised of a Flaky,

Fine Powder and Method of Production

DECLARATION

I, HIROKAZU TANAKA, hereby declare that:

1. I reside at Kitakyusyu city, Fukuoka, Japan.

2. I received a degree of Bachelor of Science from Science University of Tokyo, in March 1970.

3. I have been employed by Catalysts & Chemicals Industries Co., Ltd. for 25 years as a researcher, and I have worked in the Research and Development Division in the field of inorganic chemistry for 25 years.

4. I have conducted or had conducted under my direction comparative tests between my invention and the closest embodiment in the Kohlschutter reference (USP 3,922,392) as follows:

4.1 Preparation of Coating Mica Flakes with Silica:

The procedure described in Example 1 of the present invention was repeated to prepare coating mica flakes with silica (Sample F).

And the procedure was carried out in the same manner as

described in Example 1 of the present invention except that silica organosol was not used. That is, tetraethoxysilane and 28 % aqueous ammonia were added simultaneously in 500 g of ethanol dispersion containing 80 g of natural mica, at temperature of 45 °C and pH 9.5. The quantity of added tetraethoxysilane was 13.3 g in terms of  $\text{SiO}_2$ . After the mixture was additionally stirred for 2 hours, the dispersion was filtered, washed and then dried at 100 °C, and furthermore calcined for 4 hours at 600 °C, and thus coating mica flakes with silica (Sample G) were prepared. I believe that mica is closer base material than glass spheres used in Example 1 of the Kohlschutter reference, and that Sample G is the closest embodiment in the Kohlschutter reference, since mica is disclosed as the base material to be coated with silica at column 2, line 12 of the reference.

#### 4.2 Measurement of Scattering of Reflected Light:

The scattering state of reflected light was measured for each sample, as well as described in the specification of the present invention. The results are shown in Fig.1 (Sample F) and Fig.2 (Sample G).

Fig. 1

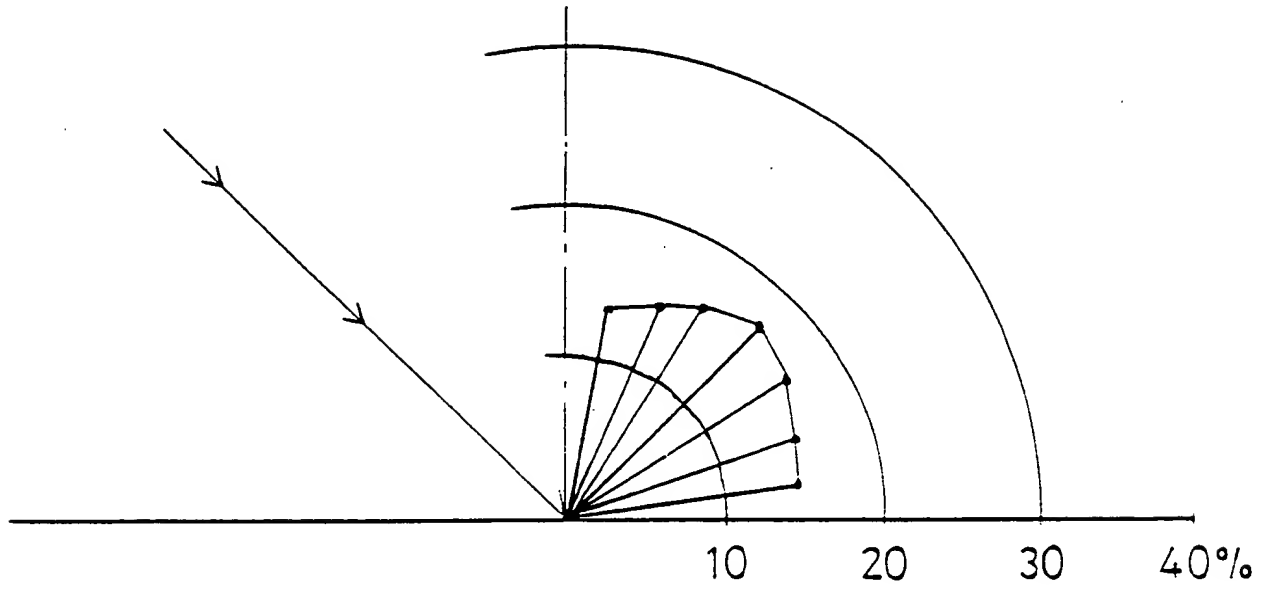
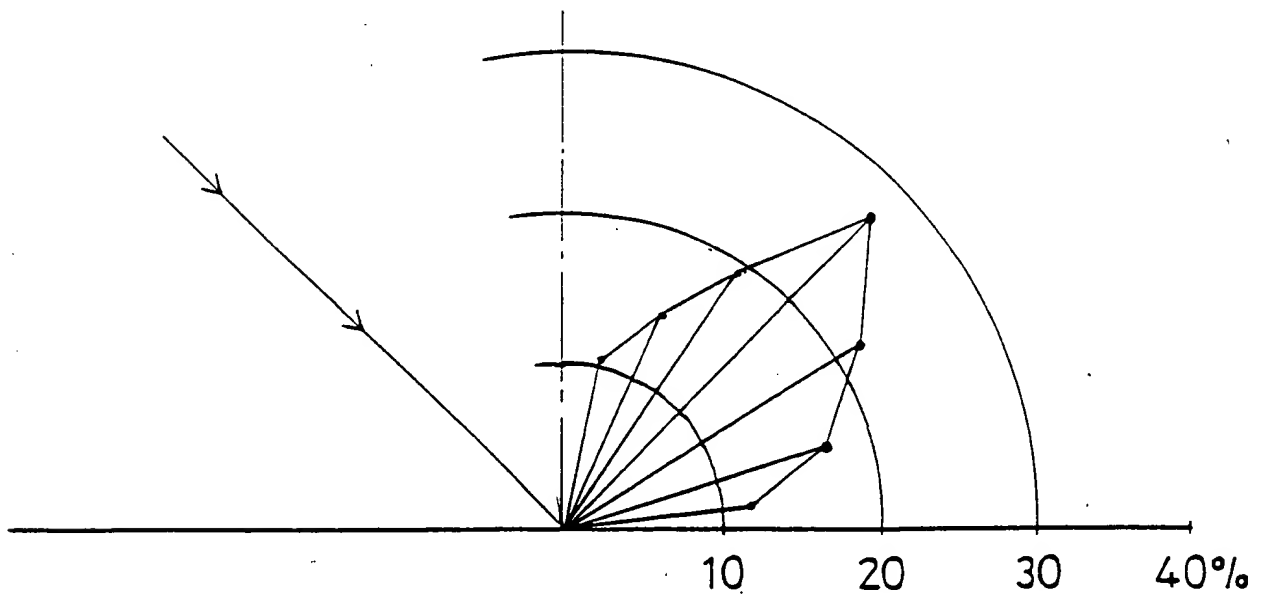


Fig. 2



#### 4.3 Evaluation of Samples:

In sample F (Fig.1) the reflected light is distributed homogeneously, but in sample G (Fig.2) it is not distributed homogeneously. Accordingly the soft focus effect in sample F prepared according to the present invention is outstanding.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Hiroko Tanaka

April 15, 1996

Date